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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/519,250
Filing Date: December 22, 2004
Appellant(s): GERMAINE, GILBERT ROBERT

Craig M. Lundell
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 17 October 2008 appealing from the Office Action mailed 17 March 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

WO 01/81508 A1	BENAZZI et al.	04-2001
US 6,579,441	BISCARDI et al.	06-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benazzi (WO 01/81508 A1) in view of Biscardi (US 6,579,441).

4. With respect to claims 1 and 4, Benazzi discloses a process for the preparation of medicinal white oil from a paraffinic distillate bottom product (see Benazzi, Abstract; page 2, lines 21-22; and page 15, lines 28-29), wherein the paraffinic distillate bottom product is obtained by a process comprising: (a) hydrocracking/hydroisomerizing a liquid hydrocarbon feed (see Benazzi, page 6, lines 4-9), wherein the feed contains at least 20% boiling volume above 340°C (see Benazzi, page 3, lines 32-34; and page 4, line 1); (b) separating the product of step (a) into one or more distillate fractions of lower boiling fractions and a broad range base oil precursor fraction and a heavy fraction such that the T90 wt% boiling point of the base oil precursor fraction is between 350°C and 550°C (see Benazzi, page 8, lines 21-31); (c) performing a pour point reducing step (e.g., via catalytic hydrodewaxing) on the broad range base oil precursor fraction obtained in step (b) (see Benazzi, page 10, lines 15-20; page 12, line 5; and page 13, lines 2-8); and (d) isolating a heavy bottom distillate fraction by distilling the product of step (c) (see Benazzi, page 14, lines 15-21).

Benazzi does not specify wherein the liquid hydrocarbon feedstock is "a Fischer-Tropsch derived paraffinic distillate bottom product," wherein the weight ratio of compounds having at least 60 or more carbon atoms and compounds having at least 30 carbon atoms in the liquid hydrocarbon feedstock is at least 0.2 and wherein at least 30 wt% of compounds in the liquid hydrocarbon feed have at least 30 carbon atoms; or wherein the bottom product is contacted with a heterogeneous adsorbent.

However, Benazzi discloses that the liquid hydrocarbon feedstock is only limited to the extent that it contain at least 20% boiling volume above 340°C (see Benazzi,

page 3, lines 32-34; and page 4, line 1). Otherwise, Benazzi provides an exhaustive, though non-exclusive, list of example feedstocks that includes vacuum distillates. Thus, Examiner finds Benazzi's disclosure to be sufficiently broad to encompass hydrocarbon feedstocks that are "Fischer-Tropsch derived paraffinic distillate bottom products," wherein the weight ratio of compounds having at least 60 or more carbon atoms and compounds having at least 30 carbon atoms in the liquid hydrocarbon feedstock is at least 0.2 and wherein at least 30 wt% of compounds in the liquid hydrocarbon feed have at least 30 carbon atoms. In addition, Biscardi discloses a process by which haze precursors are removed from base oils by contacting such oils with a heterogeneous adsorbent (see Biscardi, Abstract; column 3, lines 66-67; and column 4, lines 1-9). Biscardi explains that his process is most preferably used following a catalytic dewaxing process (e.g., step (c) of Benazzi) since haze precursors tend to be more abundant in oil that has been catalytically dewaxed (see Biscardi, column 5, lines 1-12). Specifically, Biscardi notes that a preferred base oil feed for contacting with the adsorbent generally boils above 260°C and has a viscosity, measured at 100°C, of at least 2.0 cSt (see Biscardi, column 5, lines 15-19) (e.g., the base oil obtained by the process of Benazzi, which boils at a temperature above 340°C and has a viscosity of at least 3.0 cSt at 100°C (see Benazzi, page 14, lines 15-29)).

Therefore, the person having ordinary skill in the art of processes for the preparation of medicinal and/or technical white oils would have been motivated to combine the process of Benazzi with the adsorption treatment process of Biscardi in

order to remove any haze precursors remaining in the catalytically dewaxed base oil produced by Benazzi's process.

Finally, the person having ordinary skill in the art of processes for the preparation of medicinal and/or technical white oils would have had a reasonable expectation of success in combining the process of Benazzi with that of Biscardi because: (1) both Benazzi and Biscardi are directed to the production and/or upgrading of white oils; (2) Biscardi explicitly contemplates the use of his process in combination with an upstream catalytic dewaxing process (e.g., step (c) of the process of Benazzi); and (3) Biscardi discloses the use of a preferred base oil feedstock to be treated having the same characteristics as that of the base oil produced in the process of Benazzi.

5. With respect to claim 2, Biscardi discloses wherein the adsorbent comprises active carbon (see Biscardi, column 7, lines 50-59).

6. With respect to claim 3, Benazzi discloses wherein a medicinal white oil is obtained having a kinematic viscosity at 100°C of more than 3.0 cSt (see Benazzi, page 14, lines 26-29), a non-cyclic paraffins content of greater than 80 wt% (see Benazzi, page 15, lines 20-22), a Saybolt color of greater than +30 (see Benazzi, page 16, lines 19-21), UV adsorption spectra values of less than 0.60 in the 290-299 nm spectral band and less than 0.40 in the 300-329 nm spectral band (see Benazzi, page 16, lines 3-7).

(10) Response to Argument

Appellant's arguments on pages 3 and 4

Appellant argues on pages 3 and 4 of the brief: (1) that if a medicinal white oil is obtained by the process of Benazzi then there would be no reason to add the additional

process taught by Biscardi; (2) Biscardi is directed to removing haze, and the only reference to color appears in Example 9 and shows that the Saybolt color required to meet the specification of a white oil is not met by Biscardi's process; and (3) it is clear that there are two different problems being addressed by the cited references.

In response to Appellant's arguments, Examiner submits that the person having ordinary skill in the art would have been motivated to incorporate use of Biscardi's heterogeneous adsorbent contacting step in Benazzi's process for producing a medicinal/technical white oil because: (1) Benazzi's process for producing medicinal/technical white oil involves catalytic dewaxing (see Benazzi, page 10, lines 15-20); (2) the art explicitly recognizes that base oils that have been catalytically dewaxed are likely to contain haze precursors (see Biscardi, column 5, lines 1-12); and (3) Biscardi's heterogeneous adsorbent contacting step is effective for removing at least a portion of haze precursors from base oils that have been catalytically dewaxed (see Biscardi, Abstract; column 3, lines 66-67; column 4, lines 1-9; and column 5, lines 8-12).

In addition, Biscardi explains that addition of the adsorbent contacting step to a process employing upstream catalytic dewaxing may eliminate the need for a separate hydrofinishing step in some cases (see Biscardi, column 7, lines 44-49). Because Benazzi's process does employ a separate hydrofinishing step following catalytic dewaxing (see Benazzi, page 13, lines 1-5), the prospect for eliminating the energy-intensive hydrofinishing step of the Benazzi process provides *additional* motivation to the person skilled in the art to make use of Biscardi's adsorbent contacting step.

Thus, Examiner submits that there is clear motivation for combining the teachings of Benazzi and Biscardi – namely, to remove any haze precursors that would likely be found in the catalytically dewaxed oils of Benazzi. In this regard, Examiner notes that it is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by the applicant. *See* MPEP §2144. *See also KSR Int'l Co. v. Teleflex Inc.*, 82 USPQ.2d 1385, 1397 (U.S. 2007) ("In determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls . . . [rather,] *any* need or problem known in the field of endeavor at the time of the invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.") (emphasis added).

Appellant's argument on page 4

Appellant argues on page 4 of the brief that the combination of references does not provide a reasonable expectation of success because Biscardi teaches away from using an adsorption step for reducing color which is one of the key specifications in producing a technical white oil.

In response to Appellant's argument, Examiner submits that the person having ordinary skill in the art of processes for the preparation of medicinal and/or technical white oils would have had a reasonable expectation of success in combining the process of Benazzi with that of Biscardi because: (1) both Benazzi and Biscardi are directed to the production and/or upgrading of white oils (see Benazzi, page 2, lines 21-22) (see Biscardi, column 5, lines 13-17); (2) Biscardi explicitly contemplates the use of

his process in combination with an upstream catalytic dewaxing process (e.g., step (c) of the process of Benazzi) (see Biscardi, column 7, lines 7-12 and 44-49); and (3) Biscardi discloses the use of a preferred base oil feedstock to be treated having the same characteristics as that of the base oil produced in the process of Benazzi (see discussion *supra* at page 5).

Moreover, the fact that Biscardi uses an adsorption step for purposes *other than* reducing color is irrelevant. Examiner notes that the relevant color limitations specified by Appellant's claims are met by the disclosure of Benazzi (and not Biscardi) (see discussion *supra*, rejection of claim 3), i.e. Biscardi is not relied upon for teaching a reduction in color of the white oil product. Thus, there is no "teaching away" from the combination of Benazzi and Biscardi. In contrast, the disclosure of Biscardi clearly supports Examiner's combination of Benazzi and Biscardi in rejecting Appellant's claims (see e.g., Biscardi, column 7, lines 7-12 and 44-49) (explaining that the adsorbent contacting step may follow a step of catalytic dewaxing).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Randy P. Boyer

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